

REMARKS

The Examiner has identified claims 85, 88, 89, 90, 91 and 120 as proposed counts in accordance with 37 CFR §1.607(a)(2) and as “at least one claim” in accordance with 37 CFR §1.607(3) of the U.S. Patent No. 5,839,307 patent.

37 CFR §1.607(a)(1)

Applicant, in accordance with 37 CFR §1.607(a)(1) identifies that patent as U.S. Patent No. 5,839,307 issued on the 24th of November 1998 to Peter Field and Michael Lunpkin.

37 CFR §1.607(a)(2)

Applicant proposes the following Count:

1 (Count) A lock, comprising:
2 a shell containing a hollow recess defining a longitudinal axis and an interior
3 cylindrical surface;
4 a cylinder plug rotatable around said longitudinal axis while resident within said
5 hollow recess;
6 a bar borne by said plug and rotatable with said plug relative to said shell, said bar
7 being interposed between said shell and said cylinder plug to reciprocate generally along a radial
8 plane between a first position engaging both said shell and said cylinder plug while obstructing
9 rotation of said cylinder plug within said recess, and a second position accommodating said rotation,
10 said cylinder plug comprising:

11 a first base and a second base separated by an axial length of said plug from said first
12 base, said second base bearing means for supporting a cam; and
13 an electrical operator being electrically operable to respond to an electrical control
14 signal by obstructing movement of said bar between said first position and said second position in
15 response to a first state of said control signal and by moving within a second and different plane not
16 coextensive with said radial plane in response to application of said control signal to accommodate
17 said movement of said bar in response to a second and different state of said control signal.

37 CFR §1.607(a)(3)

In accordance with 37 CFR §1.607(a)(3), claim 1 of U.S. Patent No. 5,839,307 to Field, *et al.* corresponds to the proposed Count.

First, Applicant notes that the Examiner has made various assertions that infer that the use of the phrase *at least one*¹ in the Field, *et al.* '307 patent means *a plurality or more than one*. The Examiner has cited no authority for this inference. The Examiner has also failed to demonstrate that the phrase *at least one*² as used in the Field, *et al.* '307 patent defines any number other than *one*. The Examiner's attention is invited to the complete absence of authority for the Examiner's proposition that the phrase *at least one* means any number other than *one*. The Examiner's attention is also invited to Applicant's Figure 1 which displays an array of at least three electromechanical

¹ Claim 1 of Field, *et al.* '307 reads, in part, "wherein *at least one* electromechanical locking member is disposed within the barrel" Column 9, lines 5 and 6.

² Claim 1 of Field, *et al.* '307, column 9, lines 5 and 6.

locking members 106a, 107a and 108a, all of which satisfy the definition of a locking member given by Field, *et al.* '307 in column 5, lines 1 through 8, and all or any one of which might be borne by Applicant's array of apertures 80, 82.

Second, the Examiner has written that,

“the instant specification fails to provide support for the “at least one electromechanical locking member”³

The Examiner's attention is invited to the fact that the Office has long since ruled that Applicant's armature spring constituted an “electrical operator”, and to explain in a supplemental to Paper No. 52, the difference between an “electrical operator” and an “electromechanical locking member.

Third, the Examiner's attention is invited to the description of the *electromechanical locking member* given by Field, *et al.* '307:

“[a] plurality of electromechanical locking members 50, 52, 54 preferably are located within the central recess portion 42. The locking members are referred to as electroomechanical because, as described below, there are moved under the force of an electronically powered drive mechanism.”⁴

Wholly absent from Field, *et al.* '307 is any attribution of any electromechanical characteristic or property to elements 50, 52, 54; Field, *et al.* '307 describes elements 50, 52, 54 as a passive element. In contradistinction, Applicant's locking pin 201a is disclosed as a mechanical component made of

³ Paper No. 53, page 2, paragraph 3.

⁴ Field, *et al.* '307, col. 5, lines 65 through 67, and col. 6, lines 1 and 2.

a ferromagnetic material such as iron, that is moved under the force created by an electronically powered drive mechanism, namely coil 201b. Alternatively, Applicant's "armature 106a"⁵ contains at least one of the "grooves or slots 51, 53, 55" attributed by Field, *et al.* '307 to his "locking members 50, 52, 54."⁶ Wholly absent from Paper No. 52 is any explanation by the Examiner of why slots 51, 53, 55 in Field, *et al.* '307 convert each of elements 50, 52, 54 into "at least one electromechanical locking member", while slots 107c, 108h and grooves 105n of Applicant's electromechanical components 105D, 106a, 107a and 108a do not similarly convert Applicant's electromechanical components into "electromechanical locking members", when Applicant's electromechanical components 105D, 106a, 107a and 108a are disclosed as responding to an electrically driven motor or solenoid by exhibiting movement relative to a detent, or to a sidebar, or other obstruction?

Absent any basis for the Examiner's inference⁷, paper No. 52 fails to satisfy the standard required under 37 CFR §1.104, and is incomplete to the extent that Applicant can not reasonable, and accurately comply with the requirement for Applicant's Request under 37 CFR §1.607. Accordingly, and in compliance with 37 CFR §1.104(a) and (b), the Examiner is respectfully requested to complete Paper No. 52 by preparing and providing Applicant with a supplemental Paper No. 52, containing:

- An explanation of the meaning of the phrase *at least one*.
- Identification of authority that establishes that the phrase *at least one* indicates a number greater than one under the second paragraph of 35 U.S.C. §112.

⁵ Shown in Figures 2 and 3.

⁶ Field, *et al.* '307, col. 5, lines 5 and 6.

⁷ See, for example, Paper No. 53, paragraph 3.

- Identification of authority that supports the Examiner's explanation in the supplemental Paper No. 52 of the meaning of the phrase *at least one* stated by the Examiner.
- A written explanation of the difference between an "electricomechanical locking member" and Applicant's "armatures" and "locking pins", as those terms pertain to this application.
- A written identification of the column and line number of Field, *et al.* '307 given an explanation of any *electromechanical* property and characteristic of elements 50, 52 and 54 the difference between an "electrical element", as those terms pertain to this application.
- A written explanation by the Examiner of why slots 51, 53, 55 in Field, *et al.* '307 convert each of elements 50, 52, 54 into "at least one electromechanical locking member", while slots 107c, 108h and grooves 105n of Applicant's electromechanical components 105D, 106a, 107a and 108a do not similarly convert Applicant's electromechanical components into "electromechanical locking members", when Applicant's electromechanical components 105D, 106a, 107a and 108a are disclosed as responding to an electrically driven motor or solenoid by exhibiting movement relative to a detent, or to a sidebar, or other obstruction?

37 CFR §1.607(a)(4)

In accordance with 37 CFR §1.607(a)(4), Applicant presents pending claim 46 corresponding to the proposed Count:

- 1 46. (Previously twice amended) A lock, comprising:
- 2 a shell containing a hollow recess defining a longitudinal axis and an interior
- 3 cylindrical surface;
- 4 a cylinder plug rotatable around said longitudinal axis while resident within said
- 5 hollow recess;
- 6 a bar borne by said plug and rotatable with said plug relative to said shell, said bar
- 7 being interposed between said shell and said cylinder plug to reciprocate generally along a radial
- 8 plane between a first position engaging both said shell and said cylinder plug while obstructing

9 rotation of said cylinder plug within said recess, and a second position accommodating said rotation,
10 said cylinder plug comprising:

11 a first base and a second base separated by an axial length of said plug from said first
12 base, said second base bearing means for supporting a cam; and

13 an electrical operator being electrically operable to respond to an electrical control
14 signal by obstructing movement of said bar between said first position and said second position in
15 response to a first state of said control signal and by moving within a second and different plane not
16 coextensive with said radial plane in response to application of said control signal to accommodate
17 said movement of said bar in response to a second and different state of said control signal.

37 CFR §1.607(a)(5)(i) & (ii)

In accordance with 37 CFR §1.607(a)(5)(i) & (ii), all terms of Applicant's claim 46 were previously in this application long prior to the copying of the claims of Field, *et al.* '307. No further explanation is required under 37 CFR §1.607(a)(5)(i) & (ii).

37 CFR §1.607(a)(6)

In accordance with 37 CFR §1.607(a)(6), claim 46 was present in this application before the expiration of one year from the 24th of November 1998 issue date of U.S. Patent No. 5,839,307 to Field, *et al.* No explanation under 37 CFR §1.607(a)(6) is required. Applicant notes however, that as was previously explained, Applicant's Figs. 1-18, for example, disclose, *inter alia*, shell 102, cavity 102d, barrel 70, side bar 101g, cavity 102a (to the extent that this cavity is different from the cavity 102d referred to in line 2 of claim 1 of Field '307), locking member 105, drive mechanism 105b

and control means 104. Accordingly, all elements defined in newly added claims 85 through 87, and all of the process steps defined in claim 88 are found in Applicant's specification. Retrofitting is expressly disclosed on page 4, lines 16-18, for example, as well as in lines 8-11 on page 21 and lines 4-19 of page 18 of Applicant's original specification.

Claims 85 through 88, copied substantially verbatim from U.S. Patent No. 5,839,307 issued on 24 November 1998 to Peter Field and Michael Lunpin, correspond to previously presented Claims 60 through 63. As was explained in Applicant's Second Supplemental Amendment of the 17th of August 1999, claim 85 is copied from claim 1 of the Field '307 patent by the addition of a comma in the preamble; claim 86 is copied from dependent claim 2 of Field '307; claim 87 is copied from claim 14 of Field '307, with the number of the locking member changed to singular; and claim 88 is copied verbatim from claim 19 of Field '307.

Should the Examiner desire to entertain a requirement for restriction of claim 85 through 90, or alternatively, an election of species, the Examiner is requested to immediately telephone Applicant's undersigned attorney.

No fee is incurred by this Response.

In view of the foregoing amendments and remarks, all claims are deemed to be in condition for allowance. Entry of these amendments, withdrawal of the single outstanding art rejection and

passage of this application to issue is respectfully requested. Should questions remain unresolved however, the Examiner is requested to telephone Applicant's undersigned attorney.

Respectfully submitted,



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